



THE NECESSITY OF ANALYSIS IN DOCUMENTATION: THE CASE OF METO

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OUTLINE

- Background
- The case of Meto
 - analytical issues
 - (short) history of analyses and documentation
 - implications of analyses
- Recommendations

DOCUMENTATION AND ANALYSIS

- if language documentation goes beyond turning on a recorder, you need analysis
- ‘documentation’: *compiling comprehensive, representative and lasting records of natural language*
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- a-theoretical documentation is a fallacy (Himmelfmann 1998; 2006, Gil 2001, Dryer 2006)
- no analysis = ‘data graveyards’ (Himmelfmann 2006)
- language descriptions heavily embedded in a particular framework misrepresent data (Gil 2001)
- lack of transparency about data representation leads to misinterpretation (Klamer 2009: 251).

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- language descriptions heavily embedded in a particular framework misrepresent data (Gil 2001)
- lack of transparency about data representation leads to misinterpretation (Klamer 2009: 251).
- **how a language is analysed and represented has significant implications**
 - for usability (both speakers and linguists)
 - for future work (revival, typology, reconstructions, development of linguistic theory)

HOW TO ADDRESS THESE ISSUES?

- materials produced by language documentation should be transparent in their representation (Woodbury 2003: 47)
- transcriptions should be explained with links to phonetic and phonological data (Woodbury 2003:47).
- turn ‘an attentive ear to the language under investigation and listening to what it is trying to say’ (Gil 2001: 127)
- **What does good analysis and representation look like in practice? How do these issues play out in the documentation of individual languages?**



THE CASE OF METO

LANGUAGE BACKGROUND



GLOTTAL STOPS

- Glottal stops occur (underlyingly) in all word positions and occur in ?C clusters

ʔbasa-f ['bʌsɐf] 'chest' (cf. *basi* 'mosquito')

feʔu ['feʔu] 'new' (cf. *n-eu* 'towards')

bareʔ ['bareʔ] 'thing' (cf. *bare* 'place')

- Glottal stops are also epenthetic before vowel-initial words

asu ['ʔasʊ] 'dog'

uat ['ʔuɐt] 'vein'

WORDS HAVE MULTIPLE FORMS

- morphological metathesis: $n\text{-}i\text{nu} \rightarrow n\text{-}i\text{un}$ ‘drink’, $n\text{-}ko\text{no} \rightarrow n\text{-}ko\text{on}$ ‘pass’
- metathesis and vowel assimilation
 - Amarasi: $V_{\alpha}Ca \rightarrow V_{\alpha}V_{\alpha}C$ $n\text{-}f\text{ena} \rightarrow n\text{-}f\text{een}$ ‘rise’
 - Amfo'an: all vowels: $n\text{-}i\text{nu} \rightarrow n\text{-}i\text{in}$ ‘drink’
- reduced forms of functors: $in\text{a}$, $in\text{i}$, $i\text{in}$, in ‘3SG’, $=ma$, $=ama$, $=am$, $=m$ ‘and’
- consonant insertion: nii ‘pole’ + $=ees$ ‘one’ $\rightarrow niid\text{z}ees$
 - most varieties: before vowel initial enclitics
 - Amfo'an: some varieties phrase finally
- vowel assimilation: fai ‘night’ + $=ees$ ‘one’ $\rightarrow faad\text{z}ees$
- metathesis, vowel assimilation and consonant insertion: umi ‘house’ + $=ees$ ‘one’ $\rightarrow uum\text{d}zees$
- epenthesis: $knino?$ ‘clean, holy’ $\rightarrow a|knino?$
- rich combinatorial morphology; affixes and clitics

THREE RECURRING ISSUES

1. delineation of word boundaries
2. representation of glottal stops
3. representation of vowel sequences

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 2. representation of glottal stops
 3. representation of vowel sequences
- Issues for native speakers
 - Indonesian serves as orthographic model
 - no representation of /ʔ/; Indonesian /doʔa/ <doa> 'pray'
 - no double vowels ($V_{\alpha}V_{\alpha}$)
 - often little meta-linguistic awareness of morphophonemics
 - word breaks inconsistent (influenced by syllabification)

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 - word breaks inconsistent (influenced by syllabification)
 - Issues for (non-speaker) linguists
 - glottal stop is hard to hear (esp. in clusters such as #ʔk)
 - double vowels realised variably: $/V_{\alpha}V_{\alpha}/ \rightarrow [V:] \sim [V]$ (Edwards 2016:87)
 - word breaks inconsistent (conflicting phonological and morphological information)



SHORT HISTORY OF DOCUMENTATION

SOURCES WE EXAMINE

1. Ona Liunima – inexperienced transcriber (Amanuban)
2. Middelkoop (1939, 1950, 1972) – missionary linguist (Amarasi, Molo)
3. Steinhauer (1993, 1996) – modern linguist (Miomafo)
4. Heronimous Bani – experienced transcriber (Amarasi)

INEXPERIENCED SPEAKER TRANSCRIPTION

1)	original	<i>tok</i>	<i>oke-oke</i>	<i>katitfa</i>	<i>es</i>	<i>hen</i>	<i>fen</i>
	phonemic	<i>t-took</i>	<i>oke?~oke?</i>	<i>ka= t-iit =fa</i>	<i>ees</i>	<i>he</i>	<i>n-feen</i>
	underlying	<i>t-toko</i>	<i>oke?~oke?</i>	<i>ka= t-ita =fa</i>	<i>esa</i>	<i>he</i>	<i>n-fena</i>
	gloss	0-sit\MET	RDP-all	NEG=0-exist=NEG	one	IRR	3-rise\MET
		'(we were) all sitting, there wasn't (any)one who would get up'					

Transcription by Ona Liunima, March 2017

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Double vowels ($V_{\alpha}V_{\alpha}$)

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MIDDELKOOP 1972

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original	<i>in</i>	<i>anote</i>	<i>neki</i>	<i>sunī</i>
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‘he cuts using (a) sword’

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	gloss	dog=DEF	3-stand\MET
		'the dog stands'	

4)	original	<i>qasoste</i>	<i>ntup</i>
	phonemic	<i>a-soos-t=ee</i>	<i>n-tuup</i>
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	gloss	NMLZ-sell-NMLZ=DEF	3-sleep\MET
		'the buyer sleeps'	

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	phonemic	<i>a n-hera</i>	<i>n-pun~puna</i>		<i>reʔ</i>	<i>pooʔn</i>	<i>=ii</i>
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		'ties it together in the garden'			OE1-aaz20120923_02		

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- whether $V_{\alpha}V_{\alpha}$ sequences are transcribed has a significant impact on other kinds of analysis
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- e.g. $n\text{-}futu$ 'tie' $\rightarrow n\text{-}fuut = \langle n\text{-}fut \rangle$ looks like deletion rather than metathesis
- obscures the regular patterns of the language
 - $V_\alpha CV_\beta \rightarrow V_\alpha V_\beta C$ ($n\text{-}inu \rightarrow n\text{-}iun$)
 - $V_\alpha CV_\alpha \rightarrow V_\alpha C$ ($n\text{-}futu \rightarrow \langle n\text{-}fut \rangle$)
- vowel quality irrelevant: $V_1 CV_2 \rightarrow V_1 V_2 C$

IMPLICATIONS OF ANALYSIS: ?

- Consonant insertion and metathesis after V# stems in Nai'bais Amfo'an
- CV → VC metathesis with vowel assimilation

8)	<i>basin</i>	+ =ees →	<i>baasn=ees</i>	< <i>baasn es</i> >	‘one mosquito’
	<i>molok</i>	+ =ees →	<i>moolk=ees</i>	< <i>moolk es</i> >	‘one speech’
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- if the glottal stop is not transcribed the regular patterns are obscured

IMPLICATIONS OF ANALYSIS: WORD BOUNDARIES

- *ina* 3SG frequently has reduced form *in*
- \sqrt{mofu} 'fall' cited as *n-moof* ~ *a|n-moof* [ʔan'mo:f] '3-fall'
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 1. $\langle in\textcolor{green}{a} nmoof \rangle$ [$?in\textcolor{green}{a}n'mo:f$]
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 2. $\langle in \textcolor{green}{a}nmoof \rangle$ [$?in\textcolor{red}{?}\textcolor{green}{a}n'mo:f$]
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 2. *<in anmoof>* [$\textcolor{red}{?}in\textcolor{red}{?an'mo:f}$]
 - reduced form of *in* 3SG
 - epenthesis of /a/ before #CC with regular glottal insertion #V
- analysis 1 is 'correct' and easy to read aloud
- analysis 2 aids morpheme recognition for readers



RECOMMENDATIONS: HOW WE'VE ADDRESSED THESE ISSUES



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 - how we transcribe Meto has been developed over many years, with input from many people
 - orthographic choices have been re-examined along with the analyses they imply

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 - Are linguists going to read a published collection of folk tales? (Maybe...)
 - Are anthropologists/historians going to read your works? (Maybe...)

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- What is needed for linguists doesn't always work for native speakers
 - e.g. reduced form of *in* 3SG is much more common than unreduced *ina*
 - morpheme recognition favours <*in*> for native speakers whenever this is reasonable.

MULTIPLE LEVELS OF REPRESENTATION

- publish (and archive) data with multiple levels of representation
- this is especially important in the case of Meto; the same surface form can have multiple underlying forms (e.g. Amarasi <*n-neen*> can be from \sqrt{nena} 'hear' or \sqrt{nene} 'press')

9)	phonetic	ʔahirɲə	aː	najm	nən	baɾɔ̃	ɛsə	m	nemajkɜ	ɳ
	orthographic	<i>ahirnya</i>		<i>n-aim</i>	<i>naan</i>	<i>baer</i>	<i>jes</i>	<i>am</i>	<i>na-maika'</i>	
	phonemic	<i>ahirɲa</i>	<i>ahh</i>	<i>n-aim</i>	<i>naan</i>	<i>baardɔ̃</i>	<i>=esa</i>	<i>=m</i>	<i>na-maikaʔ</i>	<i>n-</i>
	underlying	<i>ahirɲa</i>		<i>n-ami</i>	<i>nana</i>	<i>bare</i>	<i>=esa</i>	<i>=ma</i>	<i>na-maikaʔ</i>	
	gloss	end	um	3-seeK\MET	DEM	place	=one	=and	3-settle	
		'In the end, umm, he looked there for a place and settled.'								OE1-aaz20120715_04 , 0.55

MULTIPLE LEVELS OF REPRESENTATION

- publish (and archive) data with multiple levels of representation
- this is especially important in the case of Meto; the same surface form can have multiple underlying forms (e.g. Amarasi <*n-neen*> can be from \sqrt{nena} 'hear' or \sqrt{nene} 'press')

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 - transcriptions are not necessarily authoritative
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 - re-examining and justifying orthographic choices
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to accomplish documentation: compiling comprehensive, representative and lasting records of natural language

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Discussion



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